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ONE LIBERTY PLACE
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PHILADELPHIA, PA 19103

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID R. WENDER

Appeal 2016-001261¹
Application 14/174,052²
Technology Center 3600

Before JOSEPH A. FISCHETTI, CYNTHIA L. MURPHY, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–25. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Our decision references Appellant's Appeal Brief ("Appeal Br.," filed March 26, 2015) and Reply Brief ("Reply Br.," filed November 2, 2015), the Examiner's Answer ("Ans.," mailed August 31, 2015), and Final Office Action ("Final Act.," mailed November 28, 2014).

² Appellant identifies Intercontinental Exchange Holdings, Inc., as the real party in interest (Appeal Br. 1).

CLAIMED INVENTION

Appellant's claims relate generally "to receiving and processing trade orders and more particularly to methods of calculating and visually displaying the profitability and risk profile of a proposed trade to facilitate processing of a trade order" (Spec. ¶ 1).

Claim 1 is the only independent claim on appeal. Claim 1 reproduced below, with minor formatting changes and added bracketed notations, is illustrative of the subject matter on appeal:

1. A method for processing a trade order for at least one type of asset, the method comprising:

[a] receiving, by at least one computing device, market data for the at least one type of asset traded on at least one electronic exchange;

[b] receiving, by the at least one computing device, at least one pricing parameter;

[c] receiving, by the at least one computing device, at least one proposed order quantity;

[d] receiving, by the at least one computing device, at least one proposed order price;

[e] constructing, by the at least one computer device, one or more proposed trades based on the at least one proposed order quantity and the at least one proposed order price;

[f] calculating, by the at least one computer device, a theoretical price based on the received market data, the at least one pricing parameter, and the proposed order price;

[g] comparing, by the at least one computer device, a price of the one or more proposed trades with the theoretical price to determine whether any of the one or more proposed trades are profitable; and

[h] displaying, by at least one other computing device that is in electronic communication with the at least one computing device, one or more market data indicators associated with said one or more proposed trades relative to a theoretical price indicator associated with said theoretical price,

[i] wherein the market data, pricing parameter, proposed order quantity and proposed order price are received electronically via a network, via local input or via a combination thereof.

REJECTION

Claims 1–25 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

ANALYSIS

Appellants argue claims 1–25 as a group (*see* Appeal Br. 4–13; *see also* Reply Br. 1–7). We select claim 1 as representative. Claims 2–25 stand or fall with independent claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347 (2014) identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent eligibility under § 101.

According to *Alice* step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355.

The “directed to” inquiry []cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. *See Mayo*, 132 S. Ct. at 1293 (“For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”) Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v.*

Merial L.L.C., 818 F.3d 1369, 1375 (Fed. Cir. 2016) (inquiring into “the focus of the claimed advance over the prior art”).
Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). “The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d at 1335).

In rejecting claims 1–25, the Examiner finds the claims are “directed to a concept of informing a trader of profitability of a proposed trade of an asset, a fundamental economic practice” (Final Act. 4). More particularly, the Examiner finds

[c]laim 1 is directed to a method of calculating and visually displaying the profitability and risk profile of a proposed trade to facilitate processing of a trade order. A proposed trade is constructed based on proposed order quantity and a proposed order price. A theoretical price based on market data, a pricing parameter and the proposed order price is then calculated and market indicators associated with the proposed trade is displayed relative to the theoretical price. Need for determination of profitability of a proposed trade of a financial asset has long existed and many concepts have been developed to determine profitability of proposed trades [citation omitted].

(Final Act. 3). The Examiner further finds

[c]laims 1–25 implement the abstract idea of providing a trader with information of profitability associated with a proposed trade on a generic computer (labelled “computing device”) by appending limitations that amount to well-understood, routine and conventional activities at a high level of generality to the abstract idea (constructing one or more proposed trades, calculating a theoretical price, comparing a price of the proposed

trades with the theoretical price) and adding insignificant extra solution activities (receiving pricing parameter, proposed order quantity and proposed order price and displaying market data indicators). Thus, recitation of a computer in the claims amounts to a mere instruction to “implement[t]” an abstract idea “on ... a computer,” and that addition does not amount to “significant more.”

(Ans. 13).

Appellant argues “the pending claims are not directed to an abstract idea” (Appeal Br. 5). Instead, Appellants argue “that the claims are actually directed to providing and displaying critical time-sensitive information to a user of an electronic trade system in a new and improved manner that makes it easier for the user to consume and comprehend the data, which is especially critical when dealing with volatile marks” (*id.*). However, we agree with the Examiner that the claims are directed broadly to the concept of “informing a trader of profitability of a proposed trade of an asset” (*see* Final Act. 3–4; *see also* Ans. 8), and as such, the claims are directed to a fundamental economic practice long prevalent in our system of commerce given that risk management is intrinsic part of investing money. *See Alice*, 134 S. Ct. at 2357.

Further, to the extent Appellant argues that the Examiner erred in adequately supporting this determination by providing analysis (*see* Appeal Br. 8–9; *see also* Reply Br. 2), Appellant’s argument is not persuasive. At the outset, we note that there is no requirement that examiners must provide evidentiary support in every case before a conclusion can be made that a claim is directed to an abstract idea. *See, e.g.*, para. IV “July 2015 Update: Subject Matter Eligibility” to 2014 Interim Guidance on Subject Matter Eligibility (2014 IEG), 79 Fed. Reg. 74618 (Dec. 16, 2014) (“The courts

consider the determination of whether a claim is eligible (which involves identifying whether an exception such as an abstract idea is being claimed) to be *a question of law*. As such, courts do not rely on evidence that a claimed concept is a judicial exception, and in most cases resolve the ultimate legal conclusion on eligibility without making any factual findings.”) (Emphasis added). We agree that evidence may be helpful in certain situations where, for instance, facts are in dispute. But it is not always necessary. It is not necessary in this case, and based on the above analysis set forth by the Examiner, we are unpersuaded it is necessary in this case.

Instead, we need only look to other decisions where similar concepts were previously found abstract by the courts. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (“Instead of a definition [for what an ‘abstract idea’ encompasses], then, the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.”)

Here, independent claim 1 recites “[a] method for processing a trade order” including the steps of receiving data, i.e., “market data,” “pricing parameter,” “proposed order quantity,” “constructing . . . one or more proposed trades,” “calculating . . . a theoretical price,” “comparing . . . a price of the one or more proposed trades with the theoretical price to determine whether any of the one or more proposed trades are profitable,” and “displaying . . . one or more market data indicators associated with said one or more proposed trades relative to a theoretical price indicator associated with said theoretical price” (*see* Appeal Br. 15 (Claims App.)).

And, according to the Specification, the invention relates “to receiving and processing trade orders and more particularly to methods of calculating and visually displaying the profitability and risk profile of a proposed trade to facilitate processing of a trade order” (Spec. ¶ 1). In that context, we find the claims are directed to receiving data, analyzing data, and displaying data to “inform[] a trader of profitability of a proposed trade.”³

In this regard, the claims are similar to the claims that our reviewing courts have found patent ineligible in *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (collecting information and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category.”), *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1333 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 2510, 195 L. Ed. 2d 841 (2016) (using organizational and product group hierarchies to determine a price), and *Parker v. Flook*, 437 U.S. 584 (1978) (mathematical algorithm used for adjusting an alarm limit).

In *Electric Power*, the method claims at issue were directed to performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results. *Elec. Power Grp.*, 830 F.3d at 1351–52. The Federal Circuit held that the claims were directed to an abstract idea, explaining that “[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any

³ We note that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016).

particular assertedly inventive technology for performing those functions.”
Id. at 1354.

Similarly, here we find that claim 1 involves nothing more than calculating and evaluating data “to determine whether any of the one or more proposed trades are profitable create” without any particular inventive technology — activities squarely within the realm of abstract ideas. *See id.* at 1353–54 (characterizing collecting information, analyzing information by steps people go through in their minds, or by mathematical algorithms, and presenting the results of collecting and analyzing information, without more, as matters within the realm of abstract ideas).

Appellant argues that the claims

advance[] and improve[] the electronic trade-processing technology space by providing a new mechanism for determining and displaying information that is critical for making trading decisions in a manner that can be quickly consumed and understood by a trader. Under conventional systems and practices, the type of information presented to traders and the way in which it is presented would not enable the traders to make time-sensitive decisions, thereby subjecting the traders to unnecessary risk and potential loss.

(Appeal Br. 6–7 (emphasis omitted)). However, the only portion of the claimed process that could be considered “technological” is the use of generic computer components, i.e., the claimed “computing device” or “other computing device,” to determine and display information, which is not enough to confer subject matter eligibility. *See Alice Corp.*, 134 S. Ct. at 2358 (“[I]f a patent’s recitation of a computer amounts to a mere instruction to ‘implemen[t]’ an abstract idea ‘on . . . a computer,’ that addition cannot impart patent eligibility.”) (internal citations omitted).

We also are not persuaded of Examiner error by Appellant's argument that because the "claims would not preempt conventional trade-processing systems, the claims cannot be considered directed to a fundamental economic practice" (Appeal Br. 10). There is no dispute that the Supreme Court has described "the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption." *Alice*, 134 S. Ct. at 2354. But characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. "The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). Yet, although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.*

Turning to the second step of the *Alice* analysis, similar to the situation in *Electric Power*, we find nothing sufficient to remove the claims from the class of subject matter ineligible for patenting. As the court explained in *Electric Power*, "merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas." *Elec. Power Grp.*, 830 F.3d at 1355. Here, we agree with the Examiner that independent claim 1 includes generic computer components performing "their activities according to their generic functionalities

(examples: receiving inputs, and performing routine computations such as constructing proposed trade orders and calculating theoretical price based on the received inputs) which are well-understood, routine and conventional” (Final Act. 6). Thus, the steps recited by independent claim 1 amount to nothing more than mere instructions to implement the abstract idea on a computer—none of which add inventiveness because they merely require the application of conventional, well-known analytical steps. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (“[T]he claimed sequence of steps comprises only ‘conventional steps, specified at a high level of generality,’ which is insufficient to supply an ‘inventive concept.’”) (citing *Alice*, 134 S. Ct. at 2357) (internal citations omitted).

In contrast, Appellant argues “the claims recite specific limitations other than what is well understood, routine and conventional in the field and add unconventional steps that confine the claim to a particular useful application” (Appeal Br. 12; *see also* Reply Br. 2–4), and also that “the claims recite the integral use of a particular machine to achieve performance of the inventive steps” (Appeal Br. 13; *see also* Reply Br. 3). However, there is no indication in the record that any specialized computer hardware or other “inventive” computer components are required. In fact, the Specification explicitly discloses “[t]he term ‘electronic exchange server’ shall refer to any type of a computing device” (Spec. ¶ 12), “[t]he term ‘computer’ shall refer to any electronic device or devices, including those having capabilities to be utilized in connection with an electronic exchange system, such as any device capable of receiving, transmitting, processing and/or using data and information” (*id.* ¶ 13), “[t]he term ‘user interface’ shall refer to any suitable type of device, connection, display and/or system

through which information may be conveyed to a user” (*id.* ¶ 17), and “[t]he term ‘theoretical model’ shall refer to any commercially known or customized models configured for valuation purposes” (*id.* ¶ 18). Thus, independent claim 1 merely employs generic computer components to perform generic computer functions, i.e., receiving, processing, and displaying data, which is not enough to transform an abstract idea into a patent-eligible invention.

To the extent that Appellant argues that independent claim 1 necessarily contains an “inventive concept” because “Appellant’s claims recite particular features that are absent from the cited art” (Reply Br. 4) and “the claims are providing a technical solution to existing trade-processing systems that goes well beyond a mere abstract idea” (Appeal Br. 9–10, 12; *see also* Reply Br. 2), Appellant misapprehends the controlling precedent. Although the second step in the *Alice/Mayo* framework is termed a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355. A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304.

We also are not persuaded by Appellant’s argument that “Appellant’s claims bear resemblance to (a) Example #21 from the July 2015 Guidance Appendix 1: Examples (related to Transmission of Stock Quote Data), and (b) Example #25 from the July 2015 Guidance Appendix I: Examples (related to Rubber Manufacturing)” (Reply Br. 4).

With respect to Example 21, Appellant argues that “[s]imilar to the claims in the Transmission of a Stock Quote Data example, the Appellant’s claims recite additional limitations that, when considered as an ordered combination, demonstrate a technologically rooted solution to a computer-centric problem and recite significantly more than an abstract idea” (Reply Br. 5 (emphasis omitted)). However, we find no evident parallel between claim 2 of Example 21 “Transmission of Stock Quote Data” (set forth in Appendix 1 of the “July 2015 Update on Subject Matter Eligibility,” 80 Fed. Reg. 45429 (July 30, 2015))⁴ and Appellant’s claims. Similar to the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), claim 2 of Example 21 was deemed patent-eligible because the claimed invention “addresses the Internet-centric challenge of alerting a subscriber with time sensitive information when the subscriber’s computer is offline” and, thus, solves “an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology” (Appendix 1, 4). Again, as discussed above, there is no indication that any specialized hardware is required to perform Appellant’s process nor does Appellant identify any problem here particular to computer networks and/or the Internet that independent claim 1 allegedly solves. Instead, independent claim 1 merely “display[s] indicators in a particular manner” on “any suitable type of device, connection, display and/or system through which information may be conveyed to a user” (Spec. ¶ 17) is insufficient to transform Appellant’s otherwise patent-ineligible abstract idea into patent-eligible subject matter.

⁴ “July 2015 Update Appendix 1: Examples” [hereinafter “Appendix 1”], available at <http://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf>.

With respect to Example 25, Appellant argues that “[s]imilar to the claims in the Rubber Manufacturing Example, the Appellant’s claims improve a technology/technical field of computer displays” (Reply Br. 6 (emphasis omitted)). Similar to the claims in *Diamond v. Diehr*, 450 US 175 (1981), claim 2 of Example 25 was deemed patent-eligible because “the claim improves the technical field of precision rubber molding and transforms the raw, uncured synthetic rubber into a different state or thing” (Appendix 1, 18).

Appellants’ reliance on *Diehr* and Example 25, however, is misplaced. The claims in *Diehr* were directed to a process for curing synthetic rubber, and recited a series of steps (e.g., the loading of a mold with raw, uncured rubber, closing the mold, constantly determining the mold temperature, constantly recalculating the cure time, and automatically opening the press at the proper time) that together provided a significant and novel practical application of the abstract idea (i.e., the well-known Arrhenius equation) and transformed uncured synthetic rubber into a new state or thing. *See Diehr*, 450 U.S. at 184–87. And, unlike the process claimed in *Diehr*, which was directed to a specific industrial process, i.e., “a physical and chemical process for molding precision synthetic rubber products,” *id.* at 184, Appellant’s claims here merely recite “[a] method for processing a trade order” by receiving data, analyzing data, and displaying data to “inform[] a trader of profitability of a proposed trade.”

In view of the foregoing, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of independent claim 1, and claims 2–25, which fall with independent claim 1.

DECISION

The Examiner's rejection of claims 1–25 under 35 U.S.C. § 101 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED